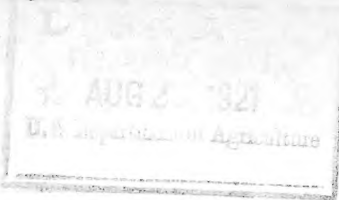


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INSECT PEST SURVEY

Bureau of Entomology, U. S. D. A.

State Entomological Agencies cooperating.

Special Report No. 15

July 15, 1921.

SERIOUS OUTBREAK OF GREATER WHEAT STEM MAGGOT
IN THE PACIFIC NORTHWEST.

Meromyza americana Fitch

The following communication was directed to Mr. W. R. Walton, of the Federal Bureau of Entomology, by Mr. L. P. Rockwood, dated July 3.

" Professor Lovett and I covered the Grande Ronde Valley and the whole north end of Union County, Ore. very thoroughly with County Agent Avery last week. We found the infestation of spring wheat by Meromyza americana very serious. We estimate it at from 10 to 80 percent of the tillers, moreover in the late sown spring wheat where the percentage of infestation was lightest a new brood of flies were ovipositing and will increase the infestation materially. We figure a loss of at least one half the spring wheat crop of Union County, the principal spring wheat county of Oregon. The Bureau of Crop Estimates gave an acreage of 34,885, a crop of 697,700 bushels of a value of \$1,290,000 for spring wheat in Union County last year. It is the general opinion in the county that the acreage of spring wheat is greater this year than last.

We are certain that the outbreak extends into Wallowa County, 19,286 acres, 347,148 bu. 1920 estimate, as we found infested fields to the north of Elgin to the county line at the highest point between the two counties. I would expect to find it all over the north central part of Oregon, eastern Washington, and central Idaho where the rainfall approaches 20" or exceeds 15". However winter wheat is the principal crop over most of this region. I will endeavor to get a life on the area covered by this outbreak when I have cleared up the routine entailed by the beginning of the fiscal year.

The outbreak appears to have been due to exceptionally favorable weather conditions. There were early rains last fall which brought out a large amount of volunteer wheat, then the backward rainy spring has been favorable to repeated broods this spring. Seeding was interrupted by weather conditions and the condition of the soil so that there is great variety in the stage of the wheat. Our observations indicate that the main source of the infestation was the volunteer wheat as there appears to be a direct relation between the amount of infestation and the amount of volunteer in the field. Oats were infested to quite an extent in places, and barley also, timothy was occasionally infested. The infestation on winter wheat is light and only occasional typical white heads are seen. "

INSECT PEST SURVEY

Bureau of Entomology, U. S. D. A.

State Entomological Agencies cooperating.

Special Report No. 17

July 15, 1921.

SERIOUS OUTBREAK OF GREAT WHEAT STEEL MAGGOT
IN THE POLING NORTHWEST

Metopolia americana Fitch

The following communication was directed to Mr. W. R. Walton, of the Federal Bureau of Entomology, by Mr. J. F. Rockwood, dated July 5.

" Professor Lovett and I covered the Grande Ronde Valley and the whole north end of Union County, Ore., very thoroughly with County Agent Avery last week. We found the infestation of spring wheat by Metopolia americana very serious. We estimate it at from 10 to 80 percent of the tillers, moreover in the late sown spring wheat where the percentage of infestation was highest a new brood of flies were ovipositing and will increase the infestation materially. We figure a loss of at least one-half the spring wheat crop of Union County, the principal spring wheat county of Oregon. The Bureau of Crop Estimates gave an average of 24,000 bushels, a crop of 627,700 bushels of a value of \$1,250,000 for spring wheat in Union County last year. It is the general opinion in the county that the average of spring wheat is greater this year than last.

We are certain that the outbreak extends into Willamette County, Ore., as we found infested fields to the north of Elgin to the county line at the highest point between the two counties. I would expect to find it all over the north central part of Oregon, eastern Washington, and central Idaho where the rainfall approaches 20" or exceeds 15". However winter wheat is the principal crop over most of this region. I will endeavor to get a list on the area covered by this outbreak when I have cleared up the routine one called by the beginning of the fiscal year.

The outbreak appears to have been due to exceptionally favorable weather conditions. There were early rains last fall which brought out a large amount of volunteer wheat, then the backward rainy spring has been favorable to repeated broods this spring. Seeding was interrupted by weather conditions and the condition of the soil so that there is great variety in the stage of the wheat. Our observations indicate that the main source of the infestation was the volunteer wheat as there appears to be a direct relation between the amount of infestation and the amount of volunteer in the field. Data were collected to quite an extent in places and barley also, though was occasionally infested. The infestation on winter wheat is light and only occasional typical white heads are seen.